

clinics of a regional hospital in southern Taiwan. Outpatients with type 2 diabetes were invited to participate the interviews for measuring QoL. After finishing the TTO exercise for measuring QoL, a semi-structured interview was followed to explore participant's view on the methods and specific attributes for trading off. TTO results were transformed to utility value, and interviews were recorded, transcribed verbatim and analyzed by constant comparison approach to saturation. **RESULTS:** Of all, 96 of the 100 participants completed the TTO (mean age: 55.8±11.0 years, 54.2% male) the average utility is 0.692±0.217, yet most participants (n=68, 70.8%) accepted current health status and life expectancy and were reluctant to give up any life years to exchange a full health. At interviews, participants revealed their worries, anxiety, discomfort and disturbances of daily life related to diabetes, but those factors were not considered when trading life year and health status during TTO exercise; instead, satisfaction of life expectancy, child-caring and self-recognition on values of life were considered. Information provided by healthcare providers, peer supports and religions were found to help patients cope with the disease and improve health-related QoL. **CONCLUSIONS:** For patients with chronic, stable diabetes, an adaptation process may have diluted the impacts of patients' concerns on health-related QoL, and hence trading on life years and health status is inappropriate to measure QoL utility. Further study is to explore feasibility of TTO at different stages of diabetic complications, and cross-validate between TTO and other utility measures.

## PDB49

## HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH TYPE-2 DIABETES: KOREAN AUDIT OF DIABETES-DEPENDENT QUALITY-OF-LIFE

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**OBJECTIVES:** Quality-of-life (QoL) is increasingly recognized as an important outcome measure that provides information on the burden of diabetes on the physical, mental and social aspects of patients' health. To pick up disease-related changes in QoL of diabetes patients in Korea, we administered Korean Audit of Diabetes-Dependent Quality-of-Life (KR-ADDQoL) instrument. **METHODS:** A prospective, observational study was carried out on type 2 diabetic patients from the diabetic clinics of 24 medical centers throughout Korea. A total of 413 diabetic patients aged 40 years and over were assessed for Health-Related QoL (HRQoL). HRQoL was assessed with KR-ADDQoL instrument. **RESULTS:** Patients with diabetes were 58±9.7 years old (47.2% female), had diabetes for 7.0±6.2 years. The mean present QoL was 0.4±0.97 (range: -3 [extremely bad] to 3 [excellent]) and diabetes-dependent QoL was -1.5±0.98 (range: -3 [very much better] to 1 [worse]). Patients with diabetes and those with hypertension reported lower present QoL, compared with diabetes only (0.3±1.01, 0.6±0.85; p=0.0161). The mean KR-ADDQoL average weighted impact (AWI) score was -2.4±1.8. Patients with 15-20 years of diabetes reported significantly worse AWI scores (-3.7±1.6) compared with those with 10-15 years (-1.9±1.5). A negative impact of diabetes was seen in all the dimensions of KR-ADDQoL. Freedom to eat and people's reaction remained as the most (mean AWI scores: -4.3±2.8) and least (-1.3±2.1) affected QoL domains, respectively, when weighting was considered. **CONCLUSIONS:** Type 2 diabetes has a negative impact in HRQoL in the patients studied. The findings highlighted the impact of diabetes on QoL with particular reference to the effects on freedom to eat, and freedom to drink. Our study contributed to the knowledge of QoL in Korean patients with type 2 diabetes by using a diabetes-specific QoL instrument. These findings suggest that the impact of diabetes in QoL among Asian is similar [ADDQoL AWI score in Singaporeans: -2.6±1.9].

## Diabetes/Endocrine Disorders – Health Care Use &amp; Policy Studies

## PDB50

## MEDICATION BELIEFS AMONG LOW-INCOME AFRICAN AMERICANS AND CAUCASIANS WITH DIABETES

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**OBJECTIVES:** We assessed medication beliefs and evaluated association between race and medication beliefs among low-income African Americans and Caucasians with diabetes. **METHODS:** A cross-sectional self-administered written survey of Type 2 diabetes patients was conducted at a primary-care clinic affiliated with a hospital serving an urban population. Inclusion criteria were being 18 years or older, diagnosed with Type 2 diabetes at least 6 months prior to the time of the survey, and taking oral anti-diabetic medication. Exclusion criteria were use of insulin or inability to read and write in English. The survey included the Beliefs about Medications Questionnaire to assess individuals' medication beliefs. Analysis of variance was used to compare differences in medication beliefs across race. **RESULTS:** Usable responses were obtained from 236 of 397 individuals who satisfied inclusion and exclusion criteria, for a response rate of 59%. The sample was 53% African American, 47% Caucasian, 63% female and 72% had annual household income of less than \$25,000. A majority (63%) had at most completed high school education. Mean belief scores for necessity of taking diabetes medications were higher for Caucasians (3.74) than for African Americans (3.49) (p=0.0396) after adjusting for age, gender, education, time since diabetes diagnosis, number of medications taken for diabetes and total medications taken for all conditions. Mean scores for perceived harm from medications were higher for African Americans

(2.55) than Caucasians (2.29) (p=0.0162). Mean scores for perceived overuse of medicines by prescribers were higher for African Americans (3.32) as compared to Caucasians (3.04) (p=0.0497). **CONCLUSIONS:** Small differences in medication beliefs between African Americans and Caucasians were observed after adjusting for other covariates. Exploration of the role of medication beliefs in racial disparities may be informative.

## PDB51

## IMPROVING HEALTH INSURANCE AND PREVENTIVE EFFORT AMONG DIABETIC PATIENTS: THE COLOMBIAN EXPERIENCE

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**OBJECTIVES:** Individuals with diabetes type 2 usually show low compliance with secondary prevention measures. Economic theory states that, from the demand side, insurance reduces the incentives for individuals to claim self-protection and hence, increases the ex-ante moral hazard while in the other hand, it selects individuals with lower risk preferences. This analysis aims to determine the net effect of contributory and subsidized insurance on preventive effort in individuals undergoing diabetes in Colombia. **METHODS:** Using data from the National Health Survey-2007, we selected individuals aged between 18-69 and previously diagnosed with diabetes (n = 1446). We performed an instrumental variables model by treating the choice of insurance as endogenous and using self-employment and the proportion of individuals insured under either contributory and subsidized regimens in the municipality as instruments. In this analysis we present marginal effects. **RESULTS:** We found evidence that, controlling for all covariates, health insurance increases prevention care in individuals under the Contributory regimen (0.259; SE 0.126) in comparison to uninsured individuals; however, for those enrolled in the Subsidized regimen the results were not significantly different when comparing to uninsured individuals (0.047; SE 0.113). **CONCLUSIONS:** The internalization of costs by health insurers throughout the life of individuals suffering from diabetes is essential to improve secondary prevention in diabetes in the country. In this case, we found that, unlike the Subsidized Regimen, the more comprehensive benefits plan in the Contributory scheme is likely to increase the cost faced by the insurer, encouraging it to promote preventive activities among individuals with diabetes. This finding has important policy implications given the rapid growth in health care costs to treat diabetes in Colombia. These results are easily inferred for other preventable chronic conditions such as chronic obstructive pulmonary disease, heart disease and hypertension.

## PDB52

## A LITERATURE REVIEW OF DIABETES RISK ASSESSMENT TOOLS

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**OBJECTIVES:** To review the variety of diabetes risk assessment tools and their validity. **METHODS:** An electronic literature search of the EMBASE, MEDLINE, Cochrane library was undertaken using key words 'diabetes risk' and screening or assessment or score or questionnaire, 'diabetes prediction', 'medical screening', and 'health risk assessment' from 1995-2010. References of identified articles were also manually searched. **RESULTS:** The electronic search retrieved a total of 2168 articles reporting diabetes risk questionnaires. Deletion of duplicates by Endnote and manual culling produced a list of 41 questionnaires developed in 22 countries, with the majority (n=26) developed in North America and Europe; the remainder were from Asia (n=10), Middle-East (n=3), Africa (n=1) and Australia (n=1). Of the 41 questionnaires, 17 were developed for screening of undiagnosed diabetes and 24 for predicting the risk of developing disease in the next 2-20 years. All identified tools are short questionnaires of 2-16 questions with common variables of diabetes risk factor such as age, gender, waist circumference, BMI, family history of diabetes, history of hypertension or antihypertensive medications being used for risk assessment. While scoring format and cutoff points are diverse across the questionnaires, the overall sensitivity, specificity, area under receiver operating characteristic curve (ROC) ranged from 40-97% and 24-86% and 62-87% respectively. Comparatively speaking, there were more tools developed for predicting the risk of developing disease in recent years. **CONCLUSIONS:** There is a trend of increasing availability of diabetes prediction tools with the existing diabetes risk assessment tools being generally short questionnaire aiming for ease of use in clinical practice. The overall performance of existing tools showed moderate to high accuracy in their predictive performance. However, there are not enough reports about their application in real-life clinical settings to allow an assessment of their effectiveness in routine practice.

## PDB53

## PRESCRIBING PATTERN OF ANTIDIABETIC DRUGS IN T2DM PATIENTS TERTIARY CARE HOSPITAL IN INDIA

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**OBJECTIVES:** To identify patterns of antidiabetic drug prescribing in established type 2 diabetes mellitus, to assess compliance of prescribing patterns with current evidences and to describe determinants of the choice of antidiabetic drugs. **METHODS:** Patients with established T2DM who attended the endocrinology Out-patient Clinic in Postgraduate Institute of Medical Education and Research, Chandigarh, India were evaluated in a retrospective observational manner. Patients were examined for social, demographical and clinical variables and medications.